

USSN: 09/560,170

Attorney Docket No.: 117-P-1345US01

Remarks

The written description has been editorially amended. Following entry of this amendment, claims 1-51 will be pending, with claims 1-19 and 28-38 having been withdrawn from consideration.

Rejection of Claims 20, 22-24, 27, 39 and 41-45 under 35 USC §112

Claims 41-46 and 49 were rejected under 35 USC §112, first paragraph as failing to comply with the written description requirement, on grounds that the written description does not support "a strip agent-permeable polymerizable topcoat comprising water and at least about 15 wt. % solids". The Office Action acknowledges that the written description says at page 8, lines 16-20 that the topcoat could be packaged as a concentrate intended to be mixed with "water or another suitable solvent at about a 15-40 % solids level", and that Formulations A and B in Table 3 at page 14 allow for the formulation to contain about 47 % solids. The written description also says at page 7, lines 9-14 (as amended above) that:

"The intermediate coating, topcoat and strip agent can contain a variety of adjuvants to alter the performance of properties of each component before or after application to a substrate. **Useful adjuvants include** leveling agents and other surface-active agents, defoamers, **solvents to accelerate or to slow the drying rate**, waxes, fillers, indicators and colorants. **The types and amounts of such adjuvants will be apparent to those skilled in the art.**" (emphasis added).

Those skilled in the art will appreciate from these portions of the written description that in the absence of adjuvants the topcoat would normally contain 100% solids; that solvents are adjuvants that could be added to the topcoat; that water is a suitable solvent; that addition of water would reduce the solids level below 100%; that the amount of water to be added will be apparent, based on the disclosure, to those skilled in the art; and that topcoats containing water but at a lower level than employed in Formulations A and B would be workable and merely represent a lower degree of dilution than shown for Formulations A and B. This situation is analogous to that in *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1576, 227 USPQ 177, 180 (Fed. Cir. 1985), where:

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"The trial court considered (1) evidence that the purpose of moisture in the mix was to make the material flow through the extruder; (2) the physical characteristics of mixtures with varying levels of water; (3) the type of test and degree of accuracy in testing for moisture level; and (4) the approximate amount of moisture known by those skilled in the art to be contained in soybean meal. Based on this evidence and the formulations disclosed in the parent application, the court allowed both parties to calculate approximate upper and lower moisture limits supportable by the parent application. It found inadequate descriptive support in the parent application for the moisture limitations of "at least about 20%" and of those claims calling for a total moisture content "between about 20% and 40% by weight," and the parties do not contest these findings. The court found adequate support for moisture levels of "at least about 25% by weight," "at least 25% by weight," and "in the range of 20-30% of the resulting mixture." The trial court noted that claims simply calling for sufficient water to permit the resulting mixture to be passed through an extruder or calling for approximately 25% of the mixture were not challenged. The trial court's rationale for striking down the claims with endpoints of 20% and 40% was that these limits could not be justified solely by the so-called ball test for moisture content. Those claims would convey new information to one skilled in the art. The open-ended claims, however, would be limited by what a person skilled in the art would understand to be workable. After careful consideration of Far-Mar-Co's arguments, we conclude that the court did not clearly err in determining that the parent's disclosure adequately supported the water ranges of "at least about 25% by weight," and "at least 25% by weight." The court, however, did clearly err in finding support in the parent for the limitation: "in the range of 20%-30% of the resulting mixture" contained in claims 19, 27, and 28." (emphasis added).

Those skilled in the art will readily appreciate that applicants' topcoat formulations can contain varying amounts of water, e.g., up to about 85% (corresponding to at least about 15% solids), and that all such formulations would be workable and merely represent differing degrees of dilution. The phrase "a strip agent-permeable polymerizable topcoat comprising water and at least about 15 wt. % solids" is accordingly adequately supported in the written description. Applicants thus

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request that the rejection of Claims 41-46 and 49 under 35 USC §112, first paragraph be withdrawn.

Rejection of Claims 20, 22-24, 27, 39, 41-45 and 47-51 under 35 USC §103(a)

Claims 20, 22-24, 27, 39, 41-45 and 47-51 were rejected under 35 USC §103(a) as being unpatentable over Published PCT Application No. WO 98/11168 (Hamrock et al.) in view of U.S. Patent No. 6,444,134 B1 (Holman et al.). Hamrock et al. describe 100% solids radiation curable coatings based on specially formulated monomers, and show that at least some of their finishes are strippable. Hamrock et al. say that removability is desirable (see e.g., page 2, lines 5-8 and page 4, lines 18-20) but also say that **"UV curable finishes generally cannot be easily stripped"** from vinyl flooring **"using conventional stripping methods"** (see e.g., page 2, line 29 through page 3, line 3, emphasis added). Finally, Hamrock et al. say that commercially available aqueous emulsion based floor finishes "have been less than completely satisfactory for several reasons" including their "relatively low solids content" and the need to dry each successive application of the finish composition "before additional coatings are applied and/or before pedestrian traffic is allowed across the treated floor" (see page 1, lines 19-27). Hamrock et al. clearly teach away from finishes with low solids content, teach away from finishes with an air drying requirement, and prefer finishes that are removable using "conventional stripping methods".

Holman et al. does not involve finishes like those described by Hamrock et al., and would not be regarded by one skilled in the art as a substitute for Hamrock et al.'s finishes. Holman et al. describe a hardwood floor refinishing system meant to replace the sanding step that typically is required when completely removing and renewing the finish on a hardwood floor (see e.g., col. 1, lines 9-35 and col. 2, lines 18-20). Hardwood floors whose finish has deteriorated are usually sanded to remove the old finish and recoated (see e.g., Holman et al. at col. 1, lines 15-35). Holman et al. propose to instead etch an existing hardwood floor finish using a caustic solution (see e.g., col. 2, lines 30-38 and col. 3, lines 39-50), rinse the etched surface and then apply a water-based coating composition. Holman et al. say that their topcoat has "chemical resistance". Chemical resistance normally is antithetical to strippability. Notwithstanding the comments in the Office Action, no proper basis has been given for a person of ordinary skill in the art to

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substitute Holman et al.'s chemically resistant water-based topcoats for Hamrock et al.'s 100 % solids formulations. Doing so would countermand Hamrock et al.'s teachings that finishes with low solids content or an air drying requirement are "not completely satisfactory" and that "UV curable finishes generally cannot be easily stripped". Doing so would also countermand the ordinary expectation of persons skilled in the art that a "chemically resistant" coating would not exhibit satisfactory strippability. Finally, doing so would involve substituting a hardwood floor refinishing system that is not said to be strippable for a vinyl floor coating that is said to be strippable. Applicants accordingly expressly disagree with the Office Action's assertion that it would be obvious to make such a substitution.

Applicants also expressly disagree with the Office Action's assertion that:

"With regards to the limitation that the polymerized topcoat can be at least partially stripped from the tile and that the intermediate coating has a stripability rating of 6 or more on a 7 point scale and that the topcoat has a stripability of 4 on a 7 point scale, the Examiner takes the position that such limitations must be met by the coatings taught by Hamrock and Holman given that the chemical composition of [these coatings] and that of the claimed invention are identical."

Hamrock et al. and Holman et al. do not teach applicants' coatings. Applicants' rejected claims recite a "laminar finish kit" that combines two coatings, namely a strippable intermediate coating and a topcoat that is waterborne (see claim 20) or that comprises water and at least about 15% solids (see claim 41). Hamrock et al. do not describe applicants' laminar finish systems (although Hamrock et al. do describe some two layer finishes), and do not describe a waterborne topcoat or a topcoat that contains water and at least about 15% solids. Holman et al. do not describe applicants' laminar finish systems and do not describe a strippable intermediate coating. Thus the chemical composition of Hamrock et al.'s coatings and Holman et al.'s coatings are not "identical" to those of the claimed invention.

The Final Rejection has not identified a proper motivation for a person of ordinary skill in the art of floor finishes to substitute Holman et al.'s chemically resistant topcoats for Hamrock et al.'s 100 % solids formulations or for such a person to expect that the substitution would provide a strippable coating as recited in claims 20, 22-24, 27, 39, 41-45 and 47-51. Applicants

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accordingly request withdrawal of the rejection of claims 20, 22-24, 27, 39, 41-45 and 47-51 under 35 USC §103(a).

Rejection of claims 26, 40 and 46 under 35 USC §103

Claims 26, 40 and 46 were rejected under 35 USC §103(a) as being unpatentable over Hamrock et al. in view of Holman et al. and U.S. Patent No. 5,571,570 (Lake). Hamrock et al. and Holman et al. are discussed above. Lake involves solvent-borne UV curable coatings (see, e.g., column 5, lines 3-18) for plastic and metal parts (see, e.g., column 2, lines 34-38). Lake says nothing regarding stripping such coatings. Strippability would not ordinarily be a desirable trait for durable coatings applied to plastic and metal parts (see, e.g., column 2, lines 39-45). Lake says that its coatings have "Chemical Resistance" (see the entries in Table 1, Table 2 and Table 3). Lake also says that separate application of a topcoat and a curing agent is disadvantageous (see, e.g., column 1, lines 15-17). This in effect teaches away from the use of multiple-layer coatings and the application of both an intermediate coat and a topcoat. The Final Rejection has not identified a proper motivation for a person of ordinary skill in the art of floor finishes to substitute Lake's coatings for Holman et al.'s topcoats or Hamrock et al.'s 100 % solids formulations or for such a person to expect that the substitution would provide a strippable coating as recited in claims 26, 40 and 46.

Applicants accordingly request withdrawal of the rejection of claims 26, 40 and 46 under 35 USC §103(a).

Rejection of claim 21 under 35 USC §103

Claim 21 was rejected under 35 USC §103(a) as being unpatentable over Hamrock et al. in view of Holman et al. and Published PCT Application No. WO 94/22965 (Koreltz et al.). Hamrock et al. and Holman et al. are discussed above. Koreltz et al. describe compositions for stripping "standard floor finishes and/or greasy residues from hard surfaces such as floors" (see, e.g., page 1, lines 5-8 and page 3, line 35 through page 4, line 2). For example, Koreltz et al.'s working examples show that "Citation" urethane sealant/finish from Buckeye International, Inc. can be removed using Koreltz et al.'s strippers (see, e.g., page 12, lines 12-18). Citation sealant/finish is relatively easy to strip, and can be used as an intermediate coating in applicants'

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invention (see, e.g., page 5, line 3). The Final Rejection has not identified a proper motivation for a person of ordinary skill in the art of floor finishes to combine Koreltz et al.'s stripping agents with Hamrock et al. and Holman et al. as proposed, and for such person to conclude that Koreltz et al.'s stripping agents could be used to remove polymerizable topcoats that are less strippable than an intermediate coating as recited in claim 21. Applicants accordingly request withdrawal of the rejection of claim 21 under 35 USC §103(a).

Rejection of claim 25 under 35 USC §103

Claim 25 was rejected under 35 USC §103(a) as being unpatentable over Hamrock et al. in view of Holman et al. and U.S. Patent No. 6,399,689 B1 (Scarlette et al.). Hamrock et al. and Holman et al. are discussed above. Scarlette et al. describe abrasion-resistant coatings containing aluminum oxide grain produced by a sol gel process (see, e.g., column 1, lines 42-48). Scarlette et al.'s Example 1 coating is sufficiently chemically resistant to withstand a 10 minute exposure to acetone (see, e.g., column 12, lines 14-28). The Final Rejection has not identified a proper motivation for a person of ordinary skill in the art of floor finishes to combine Scarlette et al.'s coatings with Hamrock et al. and Holman et al. as proposed and for such person to conclude that the resulting finishes would be strippable as recited in claim 25. Applicants accordingly request withdrawal of the rejection of claim 25 under 35 USC §103(a).

Conclusion

Applicants' written disclosure will enable those skilled in the art to appreciate that strip agent-permeable polymerizable topcoats "comprising water and at least about 15 wt. % solids" are workable and within the scope of applicants' disclosure.

Hamrock et al. do not teach and in fact teach away from topcoats made using available finishes that are waterborne or that comprise water. Holman et al. describe a floor refinishing system that is not said to be strippable and that is said to be chemically resistant. Lake describes durable, chemically-resistant coatings for plastic and metal parts. Koreltz et al. describe strippers for conventional finishes of the type used by applicants as an intermediate coating, not strippers for topcoats that are less strippable than the intermediate coating. Scarlette et al. describe acetone-resistant coatings. The Final Rejection has not identified a proper motivation for a

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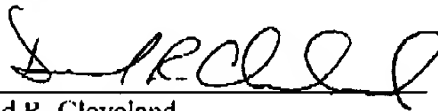
person of ordinary skill in the art of floor finishes to combine these references in the manner proposed.

Passage of the application to the issue branch is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney if there are any questions regarding this application or any suggested further amendments.

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